

# *Fats, Oils, & Grease... FOG*

## *A Proactive Solution*



WORKING WITH THE COMMUNITY

# ***Why do we need this program?***

Fats, oils and grease (FOG) are generated during food preparation. These materials will build up in sanitary sewer lines over time. These buildups lead to...



*...Sanitary Sewer Overflows (SSOs)  
which create a health risk to the  
public and a hazard to the  
environment...*





*...increased operations and maintenance costs...*





*... and Higher Utility Bills!!!*



# ***How is FOG generated?***

Just because you don't deep fry, doesn't mean you don't have FOG. FOG also comes from:

- Meats
- Dairy products
- Milk
- Yogurt
- Ice Cream
- Butter
- Cheese
- Mayonnaise & Salad Dressings



**FOG is a regulated pollutant!**



# ***Who needs to be involved in the FOG program?***

**Any food service establishment connected to City sewer.**

**Examples:**

- **Restaurants**
- **Institutional food service facilities (schools, nursing homes, etc...)**
- **Bakeries**
- **Grocery Stores**
- **Take out facilities**
- **Sandwich shops and ice cream parlors..**
- **And yes, even private residences, apartments, etc.**

***Food Preparation Generates FOG.***

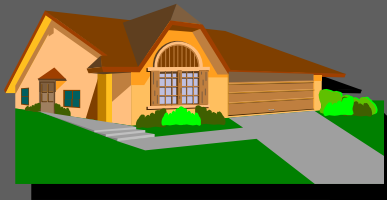


# Collection System Grease Blockages

Commercial



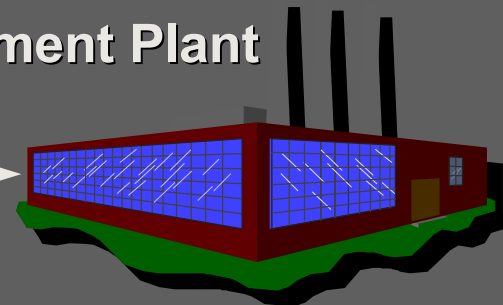
Residential



Industrial



Wastewater Treatment Plant



# Grease Concerns

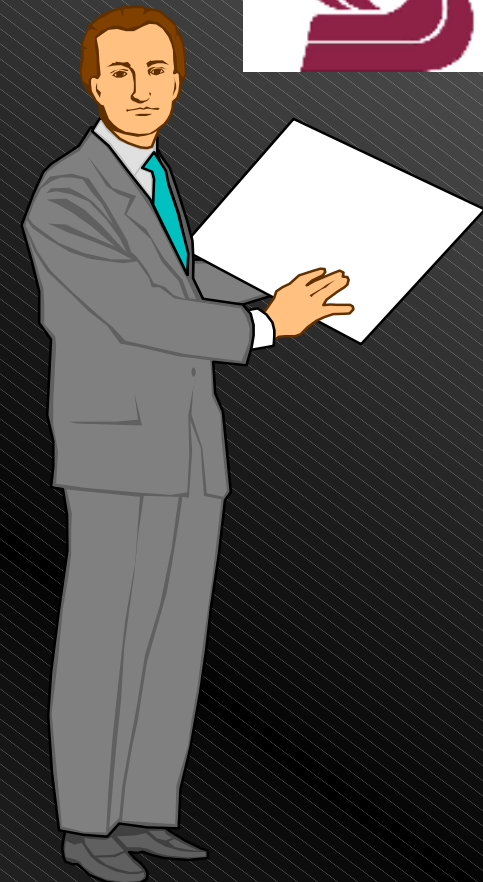


- ⇒ *Collection System Grease Blockages*
- ⇒ *Excess Repair & Maintenance Cost*
- ⇒ *Lack of Concern for Collection System*
  - Grease Trap / Interceptor Operation
  - Kitchen Drainage System Maintenance

# City FOG Program Action Plans



- ⇒ *Contact >600 Food Service Establishments*
- ⇒ *Conduct **thorough** Site Visits*
  - Food Handling Procedures
  - Proper Disposal of Oil/Grease
  - Grease Trap/Interceptor
  - Pumper/Hauler Records
  - Immediate Downstream Manhole
- ⇒ *Investigate Grease Blockages*
- ⇒ *Send Follow-up letter & Information*

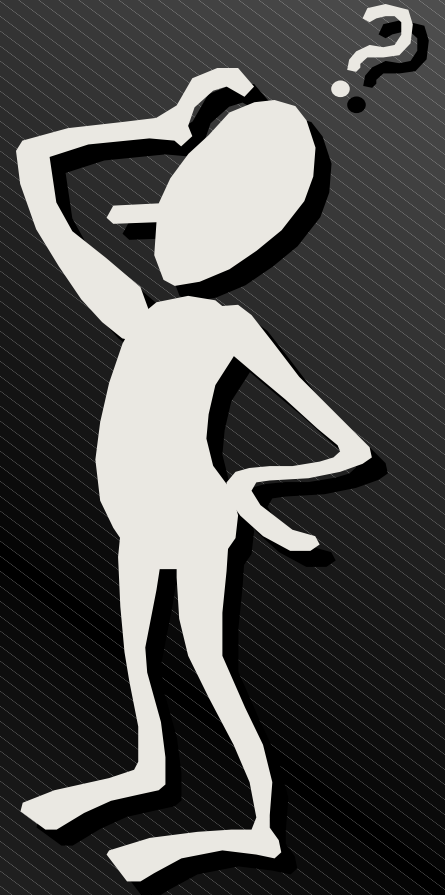




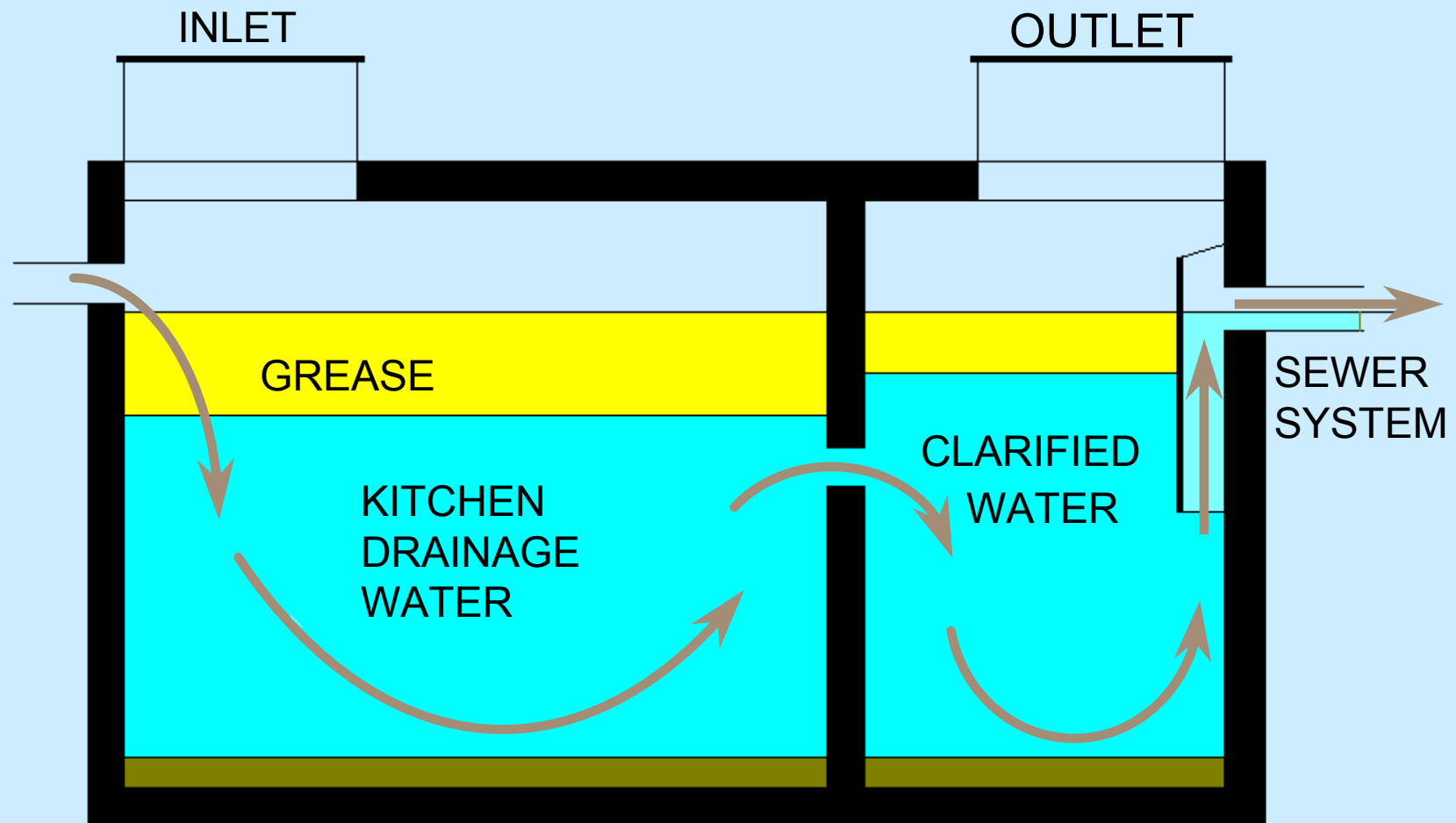


What Is a ...  
***GREASE TRAP?***

How Does It ...  
***WORK?***

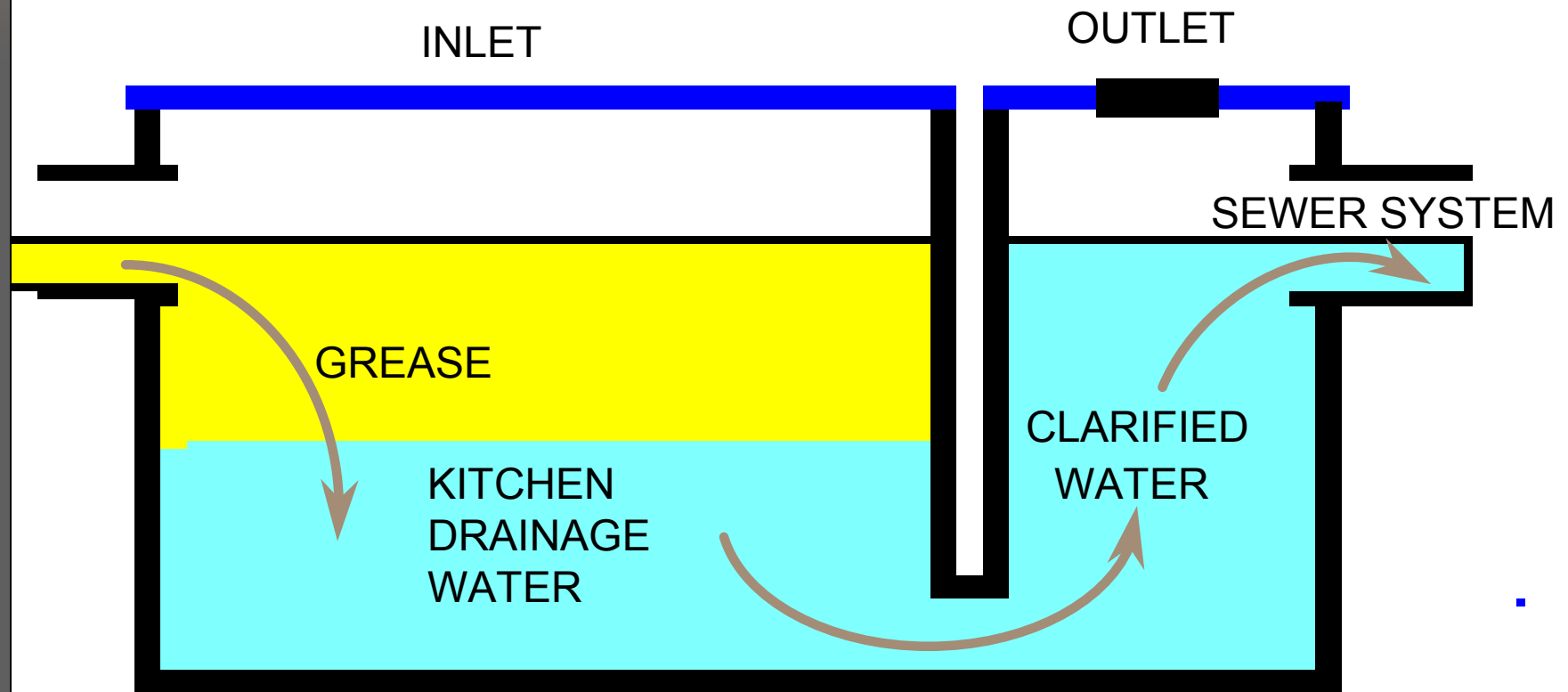


# *Grease Interceptor*



**Concrete Outdoor In-Ground Interceptor**

# *Grease Trap*



**“Under-the-Counter” Steel / Iron Model**



# Compliance Determination

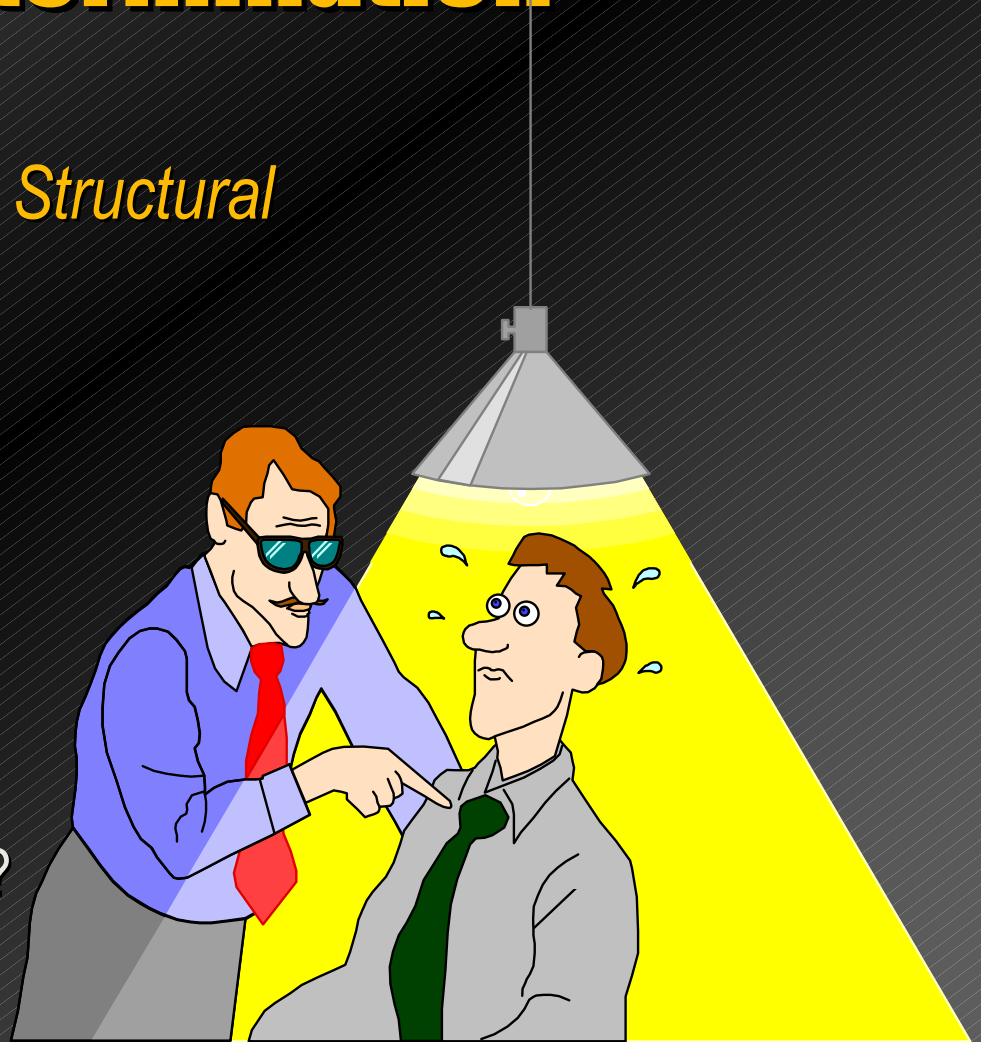
☞ *Grease Removal Device Structural Condition*

☞ *Outlet Chamber Effluent*

- Clear ?
- Floating Oil/Grease ?

☞ *Maintenance*

- Pumping Frequency ?
- Confirm Pumper/Hauler ?



# Common Structural Problems



- ⇒ *Access / Sampling Port Inadequate*
- ⇒ *“Straight Pipe”*
- ⇒ *Broken / Missing Sanitary-Tees or Elbows*
- ⇒ *Unaware of Grease Removal Device*
- ⇒ *“Backward Installation”*
- ⇒ *Flow Restrictor Missing*



# Tools of the Trade: EDUCATION

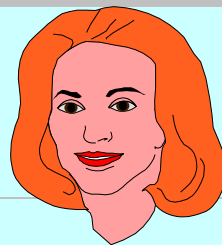
- ⇒ *Reliable “Workable “ Database*
- ⇒ *Manufacturer’s Drawings*
- ⇒ *Grease Trap/Interceptor Maintenance Log Sheet*
- ⇒ *Grease Reduction Guidelines*
- ⇒ *Permitted Pumper List*
  - Grease
  - Septage



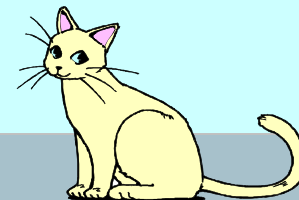
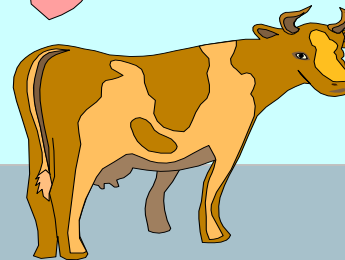


# Trap & Fryer Grease ... It's Recyclable !

**20%** Make-Up, Candle's,  
Food Grade Lubricants

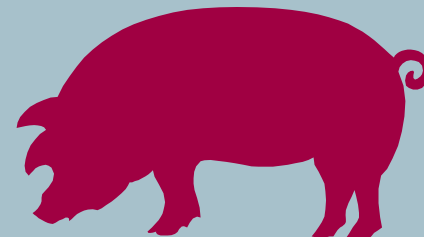
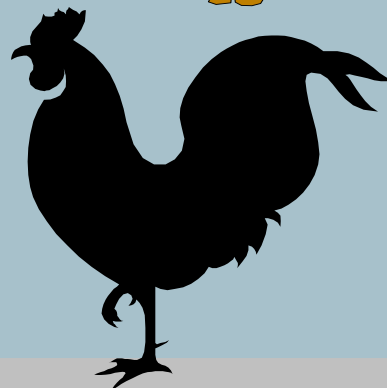


**20%** Cattle Feed, Dog & Cat Food



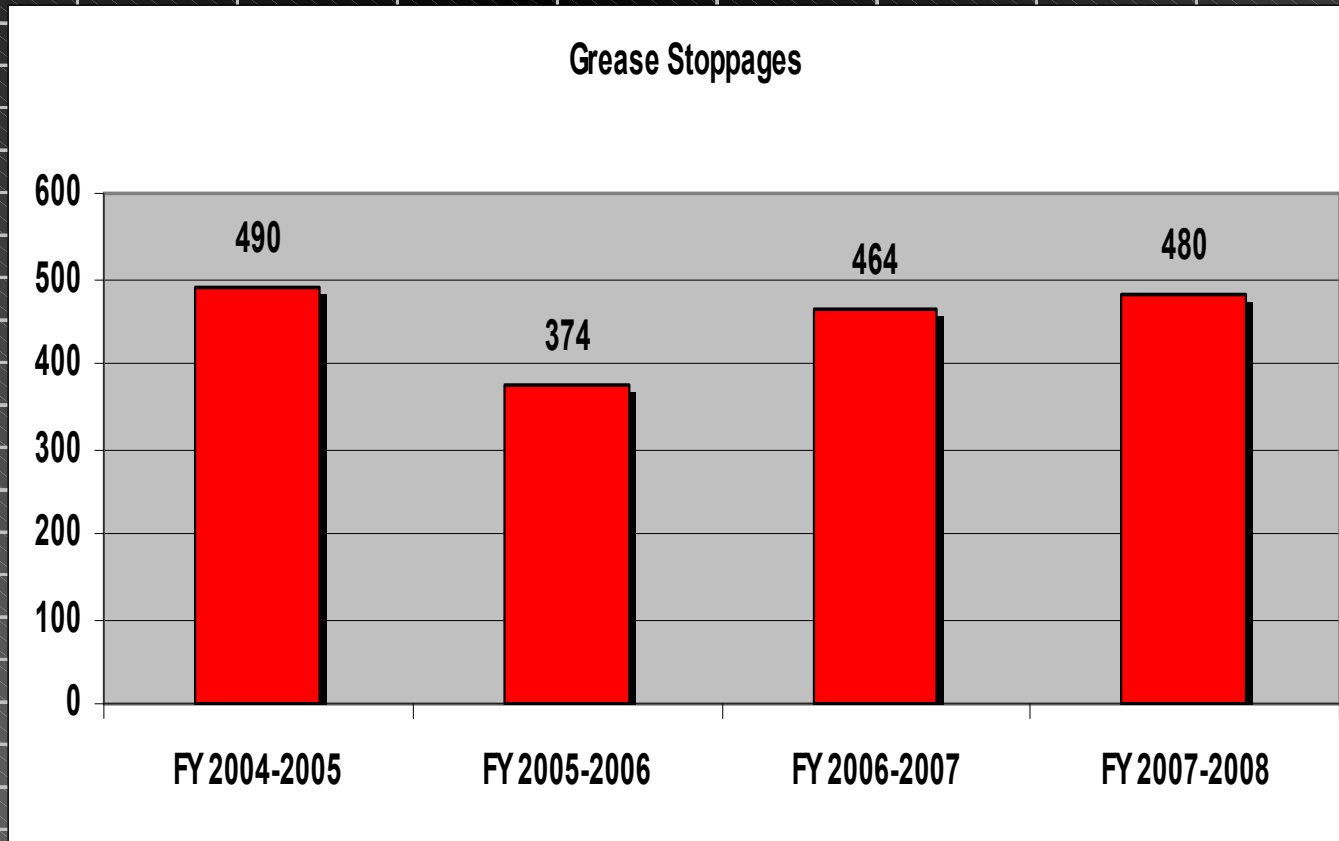
**60%**

Poultry Feed, Pork Feed



\*Source Griffin Industries, Inc.

# ***Grease-Related Sewer Stoppages Last 4 years***

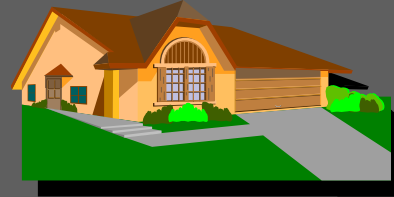


# ***Residential Grease Blockages***

Commercial



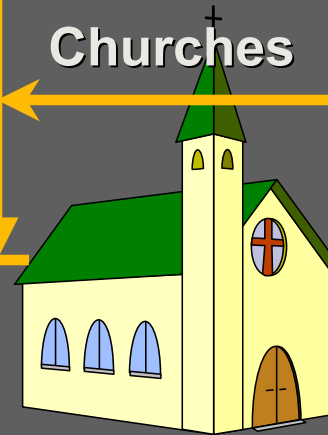
Homes



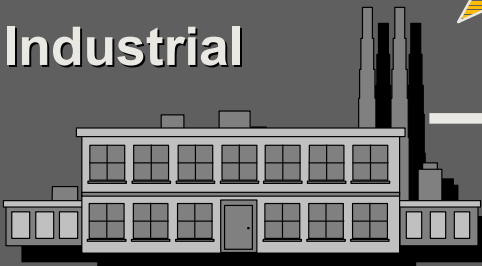
Apartments



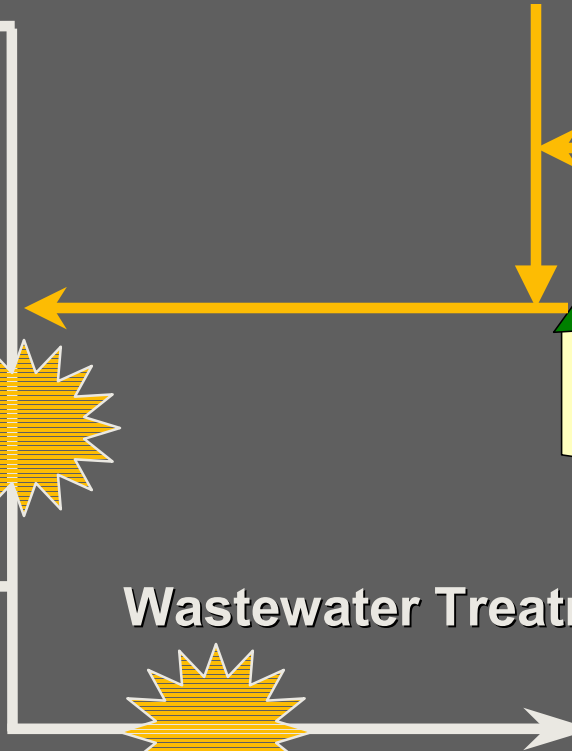
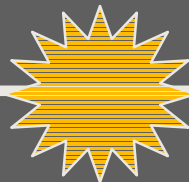
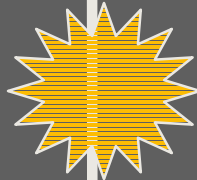
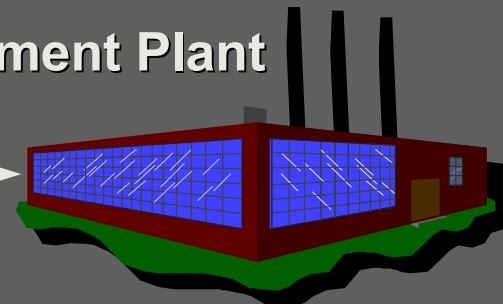
Churches



Industrial



Wastewater Treatment Plant



# ***Sewer Backups into Homes***

**This.....**



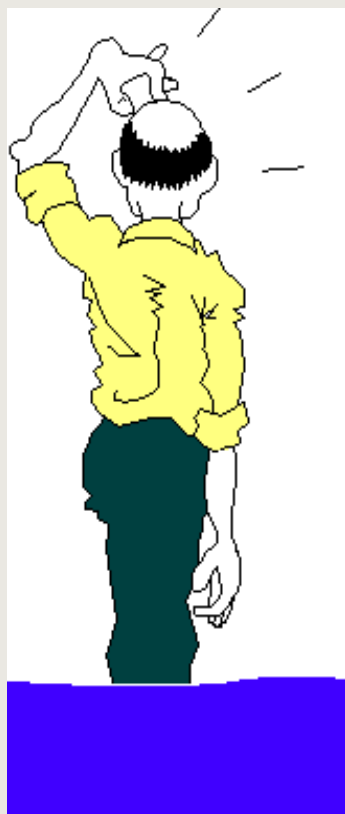
**Both liquid oils and solid fats should be placed in absorbent filled containers prior to trashing.**

**can result in this!**





# *Residential Door Flyer*



The City of Springfield needs your ***HELP!***

**We are experiencing problems  
with the sewer lines in your area...**

**“Your Subdivision or Your Neighborhood!”**

All efforts to **reduce grease** and **oil**  
from going down the drain are being encouraged.

***Please*** place ***all*** cooking grease and oils in a sealed container  
and dispose in the ***trash.***

This will help to keep things ***flowing !***

**Thanks for Your Help**

City of Springfield, Public Works Dept., Sanitary Services Division, 864-1923



# Utility Bill Stuffer



## WANTED! Fat-free Sewers



Fats, oils and greases aren't just bad for your arteries and waistline - they're bad for our city sewers, too.

Pour fats, oils and grease into a can or jar, then place in the trash.

Scrape dishes, pans and utensils into trash container, then wipe with paper towels before rinsing in the sink or placing in the dishwasher.



## Where does grease come from?

An increasingly common cause of sewer overflows is from sewers blocked by grease as a by-product of cooking:

- Meat fats / lard
- Butter / margarine
- Baking goods / sauces
- Dairy products
- Cooking oil / shortening
- Food scraps

Sewer overflows and back-ups can cause health hazards, damage home or business interiors and threaten the environment.

The residential overflow below was caused by grease building up in sewer pipes.



Grease getting into the sewer can cause costly repairs.



For information and a free brochure on avoiding grease build-up, call 864-1923 or e-mail [city@ci.springfield.mo.us](mailto:city@ci.springfield.mo.us)





# *Common Reoccurring Problem*

Low or “No”  
Pumping/Cleaning  
Frequency





# Grease Reduction Program

## *Approach*

- ⇒ *Study & Understand Grease Removal Device Detail Drawings*
- ⇒ *Review & Approve New installations **BEFORE** construction*
- ⇒ *Focus on People*
  - *Identify Concerns*
  - *Offer Recommendations*
  - *Render Assistance*





**Public Works Dept.**  
**Sanitary Services Division**  
**Pretreatment Section**  
**1216 W. Nichols St.**  
**Springfield, Mo. 65802**

**WORKING WITH THE COMMUNITY**

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